

ABSTRACT

A sensor for the detection of organisms and a method for the detection of organisms is provided, the sensor comprises a substrate; at least one pair of electrodes; a sol gel matrix comprising at least one enzyme; at least one reactant; and at least one transducer material; wherein (a) an organism expresses an enzyme on the surface of the sensor; (b) the enzyme catalyzes a reaction of the reactant of the sensor; (c) the product according to process step (b) catalytically reacted by said enzyme of the sensor; (d) the products of process step (c) modulate at least one property of the transducer material; and (e) the modulated property is measured.